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Use of Phosphate Fertilizers and Bedding to Preserve Manures

George D. Corder
University of Kentucky

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USE PHOSPHATE FERTILIZERS AND BEDDING TO PRESERVE MANURES

Superphosphate fertilizers added to farm manures as they accumulate in barns, feed lots, and loafing areas will reduce the loss of nitrogen as gaseous ammonia.

The figure below illustrates the effectiveness of various materials in reducing nitrogen losses.

Treatment	Ammonia lost in 4 months
Superphosphate	3%
Straw	19%
Rock phosphate	45%
None	56%

A standard practice for dairymen is to add 50-60 pounds of superphosphate per ton of manure. Horse and sheep manures, being more fermentable, should get 60-70 pounds per ton.

Daily rates of superphosphate are about as follows:

Animal	Superphosphate per day
Cattle and horses	1-2 pounds per head
Hogs and sheep	$\frac{1}{2}$ -1 pound per head
Chickens	1 pound per 100 hens

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Usually the largest loss in animal manures that accumulates in feeding and loafing areas results from the loss of the liquid portion. This liquid will, in general, contain 56 percent of the nutrients excreted. Thus it is important that proper amounts of high quality bedding be used to reduce liquid losses.

Uncut wheat and oat straw will absorb about twice their weights in water. Cut or shredded straw and sawdust will absorb about twice as much water as uncut straw. Shredded corn stalks, peat moss and wood shavings are good absorbents.

The table below gives the standard allowances of uncut straw for each animal per day.

Animal	Daily straw allowance per head
Cattle	9 pounds
Steers	7-10 pounds
Horses	10-15 pounds
Hogs	$1\frac{1}{2}$ pounds
Sheep	1 pound

George D. Corder

(To simplify information in this publication, trade names of some products are used. No endorsement is intended, nor is criticism implied of similar products not named.)

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